

## Lazar Creek TMDL Implementation Plan

Lazar Creek, located within Talbot County, Georgia, discharges into the Flint River immediately east of the Big Lazar Creek Wildlife Management area. The creek is approximately 6 miles long but its watershed area within Talbot County consists of an approximate 12 mile x 12 mile area. The watershed for Lazar Creek also extends into Meriwether and Harris Counties, but the bulk of the watershed lies within Talbot County. Lazar Creek is classified as a "Fishing" use for water quality purposes and 1995 data shows the creek is not supporting its designated use. As a result, a TMDL (Total Maximum Daily Load) Implementation Plan must be prepared for Lazar Creek.

An advisory committee comprised of local interests and professional staff of various agencies was assembled to complete the TMDL Implementation Plan. This document is a product of the committee.

### **General Land Use in the Watershed**

Talbot County is largely a rural county. Land uses in the watershed consist predominantly of forestry uses and, secondarily, agricultural uses, namely pastureland for cattle. Two small cities are located in the watershed area - Talbotton and Woodland. Talbotton operates a wastewater treatment plant which discharges into a tributary of Lazar Creek. The Consolidated Housing Authority of Talbot County operates a wastewater treatment plant for a public housing project in Woodland. The plant also discharges into a tributary of Lazar Creek. Other residential development in Woodland is served by individual septic systems as are the scattered residential uses found in other areas of the watershed. A small number of the older residential units in the county do not utilize a sewage disposal system.

In addition, a dairy which owns approximately 300 head of dairy cows operates in the watershed. The cows do not have access to the Lazar tributary creek which runs through/adjacent to the dairy and a 30-50 foot buffer is maintained adjacent to the creek in the vicinity of the dairy.

### **Monitoring**

The data used to place Lazar Creek on the 303(d) list was collected at a single point on the creek and is located upstream from the portion of the creek listed on the 303(d) list. The data was collected once a month for eight months from April through November of 1995. Fecal coliform exceeded allowable levels in four of those months (June, July, September, and October). The levels of fecal coliform were especially high in June and September.

Additional monitoring was done from January to December, 2000. Fecal coliform limits were exceeded two times out of the 17 samples collected and for which fecal coliform level were reported. The dates which exceeded limits were March 15 and June 1, 2000.

The consensus of the advisory committee is that monitoring must be done at more than one point along the entire stretch of the creek in order to better pinpoint pollution sources and correct the

concern. Ideally, there should be several monitoring points along Lazar Creek and also monitoring points at the mouths of major tributaries.

### **Potential Fecal Coliform Loading Sources**

The advisory committee has identified the following potential sources of fecal coliform pollution within the watershed:

- Grazing cattle having direct access to Lazar Creek and its tributaries
- Runoff from pastureland
- Runoff from urban land uses
- Wastewater treatment plants discharging effluent with high levels of fecal coliform (existing data shows plants are not currently operating above their discharge permit limits)
- Improperly functioning septic systems/residential units lacking a sanitary system
- People dumping deer carcasses into creeks during hunting season
- Runoff from dairy operation
- Sewage pumper trucks have been seen offloading into the creek.
- Wildlife

### **Existing Regulatory and Voluntary Actions**

- Some cattle ranchers have installed buffers and fencing to preclude cattle from entering creeks.
- A pig farm operated in the northwest portion of Talbot County (within Lazar Creek watershed) until 1995 or 1996. The operation has ceased operation and there are no plans to reestablish the operation.
- Owner of the dairy operation has installed a 30-50' buffer adjacent to the tributary creek which runs through the dairy's property. Dairy cows do not have access to the tributary creek. Manure disposal is handled on-site by spreading manure on hayfields. In addition, an animal waste storage lagoon was constructed to current standards in 1994 after flooding caused by Tropical Storm Alberto damaged an older lagoon on the site.
- The Consolidated Housing Authority of Talbot County constructed a new waste water treatment facility in the early 1990s to serve the public housing area in Woodland.
- Several cattle ranchers have ceased business in the last five years due to the economic challenges of ranching.
- The Georgia Department of Natural Resources, Environmental Protection Division has prepared the Flint River Basin Management Plan.
- Talbot County adopted a Soil Erosion and Sedimentation Control Ordinance in 1996 and will adopt a Wetland Protection Ordinance, Groundwater Recharge Area Ordinance, River Corridor Protection Ordinance, and Water Supply/Watershed Protection Ordinance in 2001.
- The City of Talbotton will adopt a Wetland Protection Ordinance and Groundwater Recharge Area Ordinance in 2001.
- The City of Woodland will adopt a Wetland Protection Ordinance in 2001.

### **Potential Actions that will Lessen the Fecal Coliform Load**

- Keep cattle out of the creek. This might be accomplished by providing alternative watering sites a sufficient distance from the creek. If cattle still enter the creek frequently, fencing off the creek may be necessary. Stream crossings for livestock can be provided if pastureland is on both sides of the creek. Agricultural BMPs should be followed.
- Implement adequate streamside forest buffers to provide a natural filter for runoff. Agricultural BMPs should be followed.
- Implement Urban water quality and water runoff BMPs.
- Continue to monitor wastewater treatment plants to ensure fecal coliform limits in the discharge are not exceeded.
- Implement a program to identify improperly functioning septic systems and fix them.
- Implement a program to ensure all residential units have a sewage disposal system.
- Implement a public education program to educate people on the importance of disposing of waste in an acceptable manner. Emphasize the problems created when deer carcasses are dumped into water bodies.
- Ensure sewage pumping companies are aware of the laws regarding proper disposal and the consequences of improperly disposing of sewage.

### **Funding**

The advisory committee recommends that the potential actions to be undertaken be implemented on a voluntary basis and their effectiveness gauged through monitoring. Funding mechanisms to assist landowners with the costs of implementing potential measures must be made available. Costs for water troughs, piping, pumping, fencing, buffers, and maintenance can be substantial and the landowner should not be required to bear the full burden of those costs. Currently, all agricultural funding sources come from the Federal government. The State of Georgia must consider implementing funding for agricultural programs.

Under existing law, forming a cost-sharing partnership between the wastewater treatment plants and agricultural interests is not possible because the wastewater treatment plants are prohibited from spending money outside of the plant. Such a partnership would allow the wastewater treatment plants to share in the costs of implementing Agricultural BMPs rather than installing additional equipment at the treatment plant to meet fecal coliform loading limits. The goal of not exceeding the total maximum daily load of fecal coliform can be met if all parties contributing to the loading work together to form innovative solutions. Existing laws must be reevaluated to determine if they are hindering innovative solutions to complex situations.

Funding for additional, on-going monitoring must be made available. Inadequate monitoring will be a liability in attempting to meet the TMDL goal.

## STATE OF GEORGIA

TMDL IMPLEMENTATION PLAN FOR: Lazar Creek Fecal Coliform RIVER BASIN: Flint  
 (STREAM) (PARAMETER) PLAN DATE: \_\_\_\_\_

Prepared by: <u>Perdita Holtz, AICP</u>  <u>Lower Chattahoochee</u> Regional Development Center Address: <u>1428 Second Avenue</u> City: <u>Columbus</u> State: <u>GA</u> Zip: <u>31902</u> e-mail: <u>plannerlcrdc@mindspring.com</u> Date Submitted to EPD: <u>3-27-01, revised 4-6-01</u>		Or Prepared By: <u>N/A</u>  Address: _____ City: _____ State: _____ Zip: _____ e-mail: _____ Date Submitted to EPD: _____	
General Information		Significant Stakeholders	
Obtain this information from the TMDL document or other information. When completed, this document will be a self-contained report independent of the TMDL document.		Identify local governments, agricultural organizations or significant land holders, commercial forestry organizations, businesses and industries, and local organizations including environmental groups with a major interest in this water body.	
TMDL ID (to be entered by EPD)	FLT0000001	Name/Organization	Please see attached list
Water body name	Lazar Creek	Address	
HUC basin name	Flint	City	State Zip
HUC number	03130009	Phone	e-mail
Primary county	Talbot	Name/Organization	
Secondary county	Harris and Meriwether	Address	
Primary RDC	Lower Chattahoochee	City	State Zip
Secondary RDC	N/A	Phone	e-mail
Water body location	Talbot, Harris, and Meriwether Counties	Name/Organization	
		Address	
Miles or area impacted	6 miles	City	State Zip
Parameter addressed in plan	Fecal Coliform	Phone	e-mail
Water use classification	Fishing	Name/Organization	
Degree of impairment	Partially supporting use <input type="checkbox"/>	Address	
	Not supporting use <input checked="" type="checkbox"/>	City	State Zip
Date TMDL approved by EPA	2-19-98	Phone	e-mail
Impairment due to	Point sources <input type="checkbox"/>	Name/Organization	
	Nonpoint sources <input checked="" type="checkbox"/>	Address	
	Both <input type="checkbox"/>	City	State Zip
Point source-Form A; Nonpoint source-Form B; Both-Form A+B+C		Phone	e-mail

If more, add to comments on last page.

# FORM B

## SUMMARY OF ALLOCATION MODEL RESULTS FROM TMDL DOCUMENT (existing load, target TMDL, and needed reduction)

EXISTING LOAD	TARGET TMDL	NEEDED REDUCTION
480 cfu/100 ml	175 cfu/100 ml	305 cfu/100 ml

**\*\*PLEASE SEE ATTACHED NARRATIVE FOR A MORE COMPLETE DESCRIPTION OF ITEMS BELOW\*\***

## I. IDENTIFY **NONPOINT SOURCE** CATEGORIES AND SUBCATEGORIES OR INDIVIDUAL SOURCES WHICH MUST BE CONTROLLED TO IMPLEMENT LOAD ALLOCATIONS:

List major nonpoint sources contributing to impairment including those identified in TMDL document.

SOURCE	DESCRIPTION OF CONTRIBUTION TO IMPAIRMENT	RECOMMENDED LOAD REDUCTION (FROM TMDL)
Agricultural (pasture) uses	Grazing cattle having direct access to water bodies with the watershed, runoff from pastureland, runoff from dairy operation	60%
Urban uses	Paved and developed urban lands contribute to increased urban runoff	50%
Wastewater Treatment Plants	Discharge of effluent with high levels of fecal coliform (existing data shows plants are not currently operating above their discharge permit limits).	None given in TMDL document
Septic Systems	Improperly functioning or non-existent septic systems	None given in TMDL document
Dumping	People dumping waste, especially deer carcasses, into water bodies within the watershed. Also, improper disposal of sewage by pumping companies.	None given in TMDL document
Wildlife	Wildlife having access to water bodies within the watershed	None given in TMDL document

II. DESCRIBE ANY REGULATORY OR VOLUNTARY ACTIONS INCLUDING MANAGEMENT MEASURES OR OTHER CONTROLS BY GOVERNMENTS OR INDIVIDUALS THAT SPECIFICALLY APPLY TO THE POLLUTANT AND THE WATERBODY FOR WHICH THE TMDL WAS WRITTEN, THAT WILL BE ACCOMPLISHED THROUGH RELIABLE AND EFFECTIVE DELIVERY MECHANISMS, AND THAT WILL HELP ACHIEVE THE LOAD ALLOCATIONS IN THE TMDL:

See the attachment for more instructions.

Existing or required regulatory actions

<b>RESPONSIBLE GOVERNMENT, ORGANIZATION OR ENTITY</b>	<b>NAME OF REGULATION/ORDINANCE</b>	<b>DESCRIPTION</b>	<b>ENACTED OR PROJECTED DATE (mm/yy)</b>	<b>STATUS</b>
Georgia DNR EPD	Flint River Basin Management Plan	Plan to protect, enhance, and restore the waters of the Flint River Basin by monitoring, regulating, allocating, and managing land uses in the river basin.	1997	Ongoing
Wastewater Treatment Plants	Monitoring	Wastewater Treatment Plants must monitor on a regular basis and report the results of monitoring	??	Ongoing
Talbot County	Soil Erosion and Sedimentation Control Ordinance	Protects water quality through sedimentation and erosion control by establishing BMPs and regulating land-disturbing activities.	March, 1996	Active
Talbot County, City of Talbotton, City of Woodland	Wetland Protection Ordinance	Establish boundaries around wetlands within each jurisdiction and limits types and density of development to protect water quality and habitats within these areas.	October, 2001	Will be adopted prior to October, 2001
Talbot County and City of Talbotton	Groundwater Recharge Area Ordinance	Establishes requirements to manage land use within significant groundwater recharge areas.	October, 2001	Will be adopted prior to October, 2001
Talbot County	River Corridor Protection Ordinance	Establish measures to guide and control growth in areas along the Flint River to protect the water quality and the river corridors' plant and wildlife habitats.	October, 2001	Will be adopted prior to October, 2001
Talbot County	Water Supply/Watershed	Limit types and density of development	October,	Will be

	Protection Ordinance	that would impair the water supply or watershed	2001	adopted prior to October, 2001
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Existing voluntary actions

RESPONSIBLE ORGANIZATION OR ENTITY	NAME OF ACTION	DESCRIPTION	ENACTED OR PROJECTED DATE (mm/yy)	STATUS
Property owners	Buffer/fencing	Some cattle ranchers have installed buffers and fencing to keep cattle from the creek	In the last 2-8 years	In place
Property owner	Cessation of pig farm operation	Pig farm in the northwest portion of Talbot County ceased operation	1995 or 1996	Completed
Property owner	Buffer	Owner of dairy farm has installed a 30-50' buffer adjacent to the tributary creek that runs through the property	Approx. 5 years ago	Completed
Property owner	Animal waste storage lagoon	Dairy installed a new animal waste storage lagoon to approved standards.	1994	Completed and in use
Property owners	Cessation of cattle ranching	Several cattle ranchers have ceased business	With in the last 5 years	Completed
Consolidated Housing Authority of Talbot County	New waste water treatment plant	Installed new waste water treatment plant in the early 1990s to serve the public housing area in Woodland	Early 1990s	Completed and in use

Additional recommended regulatory or other measures which should be implemented to reduce the loads of the TMDL parameter

ENTITY/ORGANIZATION RESPONSIBLE	NAME OF PROPOSED REGULATION/ORDINANCE/ OTHER	DESCRIPTION	ENACTED OR PROJECTED DATE (mm/yy)	STATUS
??	Additional monitoring	Monitoring must be performed at several points along Lazar Creek and its tributaries to determine problem areas	Needs to be done immediately	Funding for monitoring must be identified
Property owners in partnership with regulatory agencies	Implement Agricultural (pastureland) BMPs	Implement BMPs such as providing cattle with alternative watering sites and/or fencing cattle off from the creek and implementing streamside forest buffers	Dependent upon results of additional monitoring	Funding for monitoring must be identified
Property owners in	Implement Urban BMPs	If additional monitoring shows urban areas are a	Dependent	Funding for

partnership with regulatory agencies	related to water quality and water runoff	significant contributor to fecal coliform levels, implement appropriate Urban BMPs.	upon results of additional monitoring	monitoring must be identified
Health Department	Septic Systems	Implement a program to identify improperly functioning septic systems and fix them. Implement a program to ensure all residential units have a sewage disposal system.	Dependent upon additional funding	Funding for monitoring must be identified
Partnership of various agencies	Public Education	Implement a public education program to educate people about the importance of disposing of waste in an appropriate manner. Implement a program to ensure sewage pumping companies understand proper disposal laws.	Dependent upon additional funding	Funding for monitoring must be identified

### III. SCHEDULE FOR IMPLEMENTING MANAGEMENT MEASURES OR OTHER CONTROL ACTIONS:

These must be implemented as expeditiously as practicable within five years of when the implementation plan is accepted by EPA.

<b>IMPLEMENTATION ACTION</b>	<b>YEAR 1</b>	<b>YEAR 2</b>	<b>YEAR 3</b>	<b>YEAR 4</b>	<b>YEAR 5</b>
Form stakeholders group	X				
Organize implementation work with stakeholders and local officials to identify remedial measures and potential funding sources	X				
Identify sources of TMDL parameter	X	X			
Develop management programs to control runoff including identification and implementation of BMPs (Phase I):					
Agriculture	X	X			
Forestry	X	X			
Urban	X	X			
Mining	N/A				
Organize and implement education and outreach programs		X	X		
Detect and eliminate illicit discharges		X	X		
Evaluate additional management controls needed			X		
Monitor and evaluate results			X	X	X
Reassess TMDL allocations			X	X	
Provide periodic status reports on implementation of remedial activities	X	X	X	X	X
If needed, begin process for Phase II (next 5 years) and subsequent phases					X

#### IV. PROJECTED ATTAINMENT DATE AND BASIS FOR THAT PROJECTION:

The projected attainment date is 10 years from acceptance of the implementation plan by EPA.

#### V. MEASURABLE MILESTONES:

- Number of management controls and activities already implemented 13
- Number of management controls and activities proposed in five-year work program 5
- Number of management controls and activities actually implemented in five-year work period \_\_\_\_\_(to be completed after 5 years)
- Stream sampled to identify areas of concern See monitoring plan
- Other \_\_\_\_\_
- Other \_\_\_\_\_

#### VI. MONITORING PLAN:

Monitoring data that placed stream on 303(d) list will be provided if requested.

Describe previous or current sampling activities or other surveys to detect sources or to measure effectiveness of management measures or other controls.

ORGANIZATION	TIME FRAME	PARAMETERS	PURPOSE	STATUS
EPD Watershed Planning and Monitoring Program	4/95 through 11/95	Fecal Coliform	Routine Monitoring	FC exceeded allowable limits four times out of eight sampling dates
EPD Watershed Planning and Monitoring Program	Jan. 2000 through Dec. 2000	Fecal Coliform	Routine Monitoring	FC exceeded allowable limits twice in 17 sampling dates
??? - Funding must be identified	Once funding is	Fecal Coliform	Monitor the creek at several	Funding

	identified		points to better determine source(s) of contamination. Implement necessary measures to decrease fecal coliform load.	must be identified.
??? - Funding must be identified	After sources determined and measures to abate are implemented	Fecal Coliform	Periodic Monitoring at several point to determine if implemented measures are successful.	Funding must be identified.

Describe any planned or proposed sampling activities or other surveys. (Scheduled EPD sampling can be found in the Basin Planning document.)

ORGANIZATION	TIME FRAME	PARAMETERS	PURPOSE	STATUS
EPD	2005 or later	All elements/ pollutants normally tested	basin planning	Scheduled for 2005 or later

#### VII. CRITERIA TO DETERMINE WHETHER SUBSTANTIAL PROGRESS IS BEING MADE:

- % concentration or load change (monitoring program)
- Categorical change in classification of the stream (delisting the stream is the goal)
- Regulatory controls or activities installed (ordinances, laws)
- Best management practices installed (agricultural, forestry, urban)

#### COMMENTS

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